

Anticonvulsants, Serotonin–Norepinephrine Reuptake Inhibitors, and Topical Analgesics for Neuropathic Pain

Key Questions and Inclusion Criteria

Update #1

Key Questions

1. What is the comparative effectiveness of anticonvulsants, serotonin–norepinephrine reuptake inhibitors (SNRIs), and topical analgesics for neuropathic pain?
2. What are the comparative harms of anticonvulsants, SNRIs, and topical analgesics for neuropathic pain?
3. Are there differences in effectiveness or harms of anticonvulsants, SNRIs, and topical analgesics based on demographics, socioeconomic status, co-morbidities, or drug-drug interactions, when used to treat neuropathic pain?

Inclusion Criteria

Populations

Adults with neuropathic pain, including:

- Painful diabetic neuropathy
- Post herpetic neuralgia
- Trigeminal neuralgia
- Cancer related neuropathic pain
- HIV related neuropathic pain
- Central/post-stroke neuropathic pain
- Neuropathy associated with low back pain
- Peripheral nerve injury pain
- Phantom limb pain
- Guillain-Barre syndrome
- Polyneuropathy
- Spinal cord injury related pain
- Complex Regional Pain Syndrome (also known as Reflex Sympathetic Dystrophy)

Comment [SC1]: All types of CRPS may be considered neuropathic pain

Interventions

Anticonvulsants:

Gabapentin (Neurontin)
Pregabalin (Lyrica)
Carbamazepine (Tegretol, Carbatrol, Epitol*)
Topiramate (Topamax)
Oxcarbazepine (Trileptal)
Lamotrigine (Lamictal)
Valproic acid/divalproex (Depacon, Depakene*/Depakote, Epival*)

~~Tricyclic antidepressants:~~

~~Amitriptyline (Elavil, Vanatrip)~~
~~Desipramine (Norpramin)~~
~~Nortriptyline (Pamelor, Aventyl)~~
~~Imipramine (Tofranil)~~
~~Doxepin (Sinequan, Zonalon)~~

SNRIs:

Duloxetine (Cymbalta)
Venlafaxine (Effexor)

~~SSRIs:~~

~~Citalopram (Celexa)~~
~~Fluoxetine (Prozac)~~
~~Paroxetine (Paxil)~~
~~Sertraline (Zoloft)~~
~~Escitalopram (Lexapro, Cipralex*)~~

Topical analgesics:

Lidocaine transdermal patch (Lidoderm)
Capsaicin topical patch (Qutenza)

Comment [SC2]: Consider removing one or both of these?

~~NMDA receptor antagonist:~~

~~Dextromethorphan~~

Effectiveness outcomes

- Response (including patient reported pain relief, patient reported global impression of clinical change, any other pain related measure)
- Use of rescue analgesics
- Functional capacity (quality of life, work productivity)
- Speed and duration of response
- Relapse

Harms

- Overall adverse effects
- Withdrawals
- Withdrawals due to adverse effects
- Serious adverse events (including mortality, arrhythmias, seizures, overdose)
- Specific adverse events or withdrawals due to specific adverse events (including, but not limited to, hepatic, renal, hematologic, dermatologic, sedation/drowsiness, and other neurologic side effects)

Study designs

1. For effectiveness, controlled clinical trials, good or fair quality systematic reviews, long-term comparative observational studies.

2. For harms, in addition to controlled trials and systematic reviews, observational studies.